

## ABSTRACT

### PHARMACEUTICAL CARE IMPLEMENTATION IN SOLVING DRUG-RELATED PROBLEMS OF FIRST LINE ANTITUBERCULAR DRUGS IN TUBERCULOSIS PATIENTS WITH INTENSIVE PHASE

(Study at Inpatient Ward and Outpatient Unit Jember Chest Hospital)

**Background** : Tuberculosis is an infection disease that caused by *Mycobacterium tuberculosis* and can attack lungs and other organs. Tuberculosis patients in intensive phase are at risk of getting drug-related problems because of long term anti tubercular drugs use, drug interactions, adverse reaction events, and compliance. Implementation of pharmaceutical care must be prioritized to patients with tuberculosis.

**Objectives** : To analyze the implementation of pharmaceutical care in solving drug-related problems of first line anti tubercular drugs in tuberculosis patients with intensive phase at Inpatient Ward and Outpatient Clinic Jember Chest Hospital.

**Methods** : Observational prospective study was conducted during May-July 2018. Data were obtained from patient's medical record, patients visit, and communication with other health care professions. Drug-related problems identification was conducted, including causes and their interventions to solve the problems. DRPs were identified by using classification of PCNE V8.01 2017 version.

**Results** : 103 patients with tuberculosis who treated with first line anti tubercular drugs and in intensive phase were included during this study. There were 167 DRPs identified in 85 patients (83%). The DRPs were effect of drug treatment not optimal (28%) including dose too low or too high and adverse drug events (72%) including nausea & vomiting, elevation of hepatic enzyme, itchy, hyperuricemia, epigastric pain, vertigo, elevation of renal function test, rashes, and fever. There were 281 causes for drug problems. 72% interventions were accepted by physician.

**Conclusions** : Pharmaceutical care implementation was importantly needed in solving DRPs of anti tubercular drug in tuberculosis patients. 88% drug-related problems were solved. From all of patients, 75% have sputum conversion at the end of intensive phase that indicated effectiveness of tuberculosis therapy. Good collaboration and communication among health proffesionals were needed in the treatment of tuberculosis patients.

**Keywords** : Anti tubercular drug, pharmaceutical care, drug-related problems